

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/025,742	CHUAH ET AL.	
	Examiner	Art Unit	
	John J. Tabone, Jr.	2138	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to amendment filed 10/25/2005.
2.  The allowed claim(s) is/are 1, 2, 7, 8, 13-16 and 20-27.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

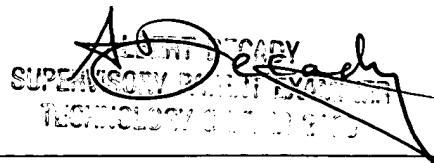
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



A handwritten signature is placed over a circular official stamp. The stamp contains the text: "SUPERVISORY PATENT EXAMINER", "TECHNOLOGY CENTER 2220", and "12152005".

## DETAILED ACTION

1. Claims 1, 2, 7, 8, 13-16 and 20-27 remain pending in the present application. Claims 1, 2, 7, 8, 13-16 and 20 are amended. Claims 21-27 are newly added. Claims 3-6, 9-12 and 17-19 have been cancelled.
2. As a result of the Applicants' amendment filed 10/25/2005, the Double Patenting rejection, as set forth in the Final Office Action of Record, has been withdrawn by the Examiner.

## EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Richard J. Mitchell on 12/15/2005.

The application has been amended as follows:

### Claim 1:

- a.) On lines 13-14, change "the first said diagnostic cell match counter" to "a first of said diagnostic cell match counters".
- b.) On lines 14-15, change "to fail to detect passage thereof" to "that fails to detect passage of said diagnostic cells".

Claim 7:

- a.) On line 10, change counter to counters.
- b.) On line 11, delete modules.
- c.) On line 13, change “the first said diagnostic cell match counter” to “a first of said diagnostic cell match counters”.
- d.) On line 14, change “to fail to detect passage thereof” to “that fails to detect passage of said diagnostic cells”.

Claim 13:

- a.) On line 3, delete “said datastream”.

Claim 15:

- a.) On line 4, change “a datapath” to “a first datapath”.
- b.) On lines 12-13, change “the first said diagnostic cell match counter” to “a first of said diagnostic cell match counters”.
- c.) On lines 13-14, change “to fail to detect passage thereof” to “that fails to detect passage of said diagnostic cells”.

Claim 20:

- a.) On line 2, change “said datapath” to “said first datapath”.

Claim 23:

- a.) On line 3, change “said first said diagnostic cell match counter” to “said first of said diagnostic cell match counters”.

Claim 27:

a.) On line 3, change "said first said diagnostic cell match counter" to "said first of said diagnostic cell match counters".

***Allowable Subject Matter***

4. Claims 1, 2, 7, 8, 13-16 and 20-27 are allowed.

The following is an Examiner's Statement of Reasons for Allowance:

The present invention relates to a method and system for isolation of a fault location in a communication device, such as a routing switch.

The claimed invention as set forth in system claim 7 (broadest claim) recites features such as:

a diagnostic cell insertion module for inserting diagnostic cells at a starting point in a datapath between an ingress point and an egress point;

a plurality of diagnostic cell match counters located along said datapath downstream of said starting point for tracking passage of said diagnostic cells at a plurality of points along said datapath , said diagnostic cell match counters being capable of distinguishing said diagnostic cells from said customer cells; and

an analysis module configured to analyze said diagnostic cell match counters to identify which said diagnostic cell match counters have failed to detect passage of said diagnostic cells, said analysis module identifying said failure location in said datapath as being upstream of a first of said diagnostic cell match counter normally passed by said diagnostic cells that fails to detect passage of said diagnostic cells.

The prior arts of record teach creating and injecting a test cell (**a diagnostic cell insertion module**) at a source endpoint (ATM point). Also, the prior arts of record teach an apparatus for and a method of detecting an OAM cell (**tracking passage of said diagnostic cells**) with OAM cell detector 1 for use with an ATM network including connections between one station and a plurality of stations in which even when a double failure occurs in the ATM network, one failed position can be determined; Moll (US-5710760) and Sugaya (US-6700873) are examples of such prior arts.

The prior arts of record, however, fail to teach, singly or in combination, a plurality of diagnostic cell match counters located along said datapath downstream of said starting point for tracking passage of said diagnostic cells at a plurality of points along said datapath, said diagnostic cell match counters being capable of distinguishing said diagnostic cells from said customer cells and an analysis module configured to analyze the diagnostic cell match counters to identify which of the diagnostic cell match counters have failed to detect passage of the diagnostic cells, said analysis module identifying said failure location in said datapath as being upstream of a first of said diagnostic cell match counter normally passed by said diagnostic cells that fails to detect passage of said diagnostic cells. As such, modification of the prior art of record to include the claimed plurality of diagnostic cell match counters and analysis module can only be motivated by hindsight reasoning, or by changing the intended use and function of the prior art themselves. Therefore, it is not clear that one of ordinary skill in the art at the time of the invention would have made the necessary modifications to the prior art of record to encompass the plurality of diagnostic cell match counters and analysis module.

set forth in the present application. Moreover, none of the prior arts of record, taken either alone or in combination, anticipate nor render obvious the plurality of diagnostic cell match counters and analysis module as set forth in claim 7. Claims 1 and 15 are method claims that recite similar limitations as system claim 7 and are allowable for the same reasons stated above. Hence, claims 1, 2, 7, 8, 13-16 and 20-27 are allowable over the prior arts of record.

The Examiner agrees with the Applicant's arguments with regard to this feature in view of the arts of record; therefor, the Examiner favors the allowance of claims 1, 2, 7, 8, 13-16 and 20-27. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a.) Moll (US-5710760)

Moll teaches creating and injecting a test cell (**a diagnostic cell insertion module**) at a source endpoint (ATM point). (Claims 1, 7 and 15).

b.) Sugaya (US-6700873)

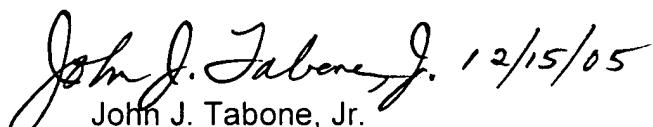
Sugaya teaches an apparatus for and a method of detecting an OAM cell (**tracking passage of said diagnostic cells**) with OAM cell detector 1 for use with an

ATM network including connections between one station and a plurality of stations in which even when a double failure occurs in the ATM network, one failed position can be determined. (Claims 1, 7 and 15).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Tabone, Jr. whose telephone number is (571) 272-3827. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John J. Tabone, Jr.  
Examiner  
Art Unit 2138

  
ALBERT DECADY  
SUPERVISORY PATENT EXAMINER